



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,163	01/22/2001	Hideshi Mochizuki	1115.65144	2571

24978 7590 04/25/2003

GREER, BURNS & CRAIN
300 S WACKER DR
25TH FLOOR
CHICAGO, IL 60606

EXAMINER

ORTIZ, JORGE L

ART UNIT	PAPER NUMBER
----------	--------------

2697

DATE MAILED: 04/25/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,163

Applicant(s)

MOCHIZUKI ET AL.

Examiner

Jorge L Ortiz-Criado

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 6-7 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Koizumi et al. U.S. Patent No. 5,982,570.

Regarding claim 1, Koizumi et al. discloses an information storage apparatus, operated by an electric power, for holding an information-recording medium in a predetermined position and rotating the information-recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium (See Abstract, col. 1, lines 10-19), said information storage apparatus comprising:

a recognition section for recognizing whether or not said electric power is a power of a predetermined level or more (See col. 11, lines 39-40; col. 19, lines 14-18; Fig. 5, block # 201);

and a decelerator for decelerating rotation of said information recording medium in a first deceleration mode which consumes a relatively large power (See Figs. 15- block # 603, 604; 19A, 19B),

Art Unit: 2697

or decelerating the rotation of said information recording medium in a second deceleration mode which consumes a relatively small power (See Figs. 15-block # 603, 604; 19A, 19B),

depending upon whether said recognition section recognizes that said electric power is the power of the predetermined level or more, or that said electric power is less than the predetermined level (See col. 4, lines 43-53; col. 19, lines 14-45 ; Figs 19A, 19B)

Regarding claim 2, Koizumi et al. discloses a driver for driving said information recording medium in said predetermined direction, wherein said decelerator employs, as said second deceleration mode, a deceleration mode for stopping the driving by said driver to decelerate the rotation of said information recording medium (See Fig. 5-block # 603,604)

Regarding claim 6, Koizumi et al. discloses a driver for receiving a signal indicating a rotation speed, and driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal, wherein said decelerator employs, as said second deceleration mode, a deceleration mode for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium (See Fig. 5-block # 603,604).

Regarding claim 7, Koizumi et al. discloses a driver for receiving a signal indicating a rotation speed, and driving the information recording medium in said predetermined direction in

Art Unit: 2697

such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See Fig. 5-block # 603,604).

wherein said decelerator employs a deceleration mode for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium and subsequently inputting a signal indicating a rotation speed further lower than the rotation speed indicated by the signal to said driver to further decelerate the rotation of said information recording medium as said second deceleration mode (See Figs. 15-block # 603, 604; 19A, 19B),

Regarding claim 11, Koizumi et al. discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium (See Abstract, col. 1, lines 10-19), said information storage apparatus comprising:

a driver for receiving a signal indicating a rotation speed, and driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See Figs. 15- block # 603, 604; 19A, 19B);

and a signal controlling decelerator for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate rotation of the information recording medium (See Figs. 15-block # 603, 604; 19A, 19B).

Regarding claim 12, Koizumi et al. discloses wherein said signal controlling decelerator inputs the signal indicating the rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium (See Figs. 15-block # 603, 604; 19A, 19B),

and subsequently inputs a signal indicating a rotation speed further lower than the rotation speed indicated by the signal to said driver to further decelerate the rotation of said information recording medium (See Figs. 15-block # 603, 604; 19A, 19B).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi et al. U.S. Patent No. 5,982,570 in view of Hattori et al. U.S. Patent No. 4,417,288.

Regarding claim 3, Koizumi et al. discloses all the limitations based on claim 1 as outlined above. Koizumi et al. further discloses a driver for driving said information recording medium in said predetermined direction (See Fig. 5-block # 603,604),

a decelerator employs a deceleration mode for stopping the driving by said driver to decelerate the rotation of said information recording medium (See Figs. 15- block # 603, 604; 19A, 19B)

and decelerate the rotation of the information recording medium as said second deceleration mode (See Figs. 15- block # 603, 604; 19A, 19B)

But Koizumi et al. fails to disclose a brake for applying a brake force to said information recording medium to decelerate the rotation. However this feature is well known in the art as evidenced by Hattori et al., which discloses a brake for applying a brake force to said information-recording medium to decelerate the rotation (See col. 2, lines 9-32; col. 3, lines 41-45);

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to include a brake for applying a brake force to said information-recording medium to decelerate the rotation in order to reach a predetermined motor speed as suggested by (Hattori et al.)

Regarding claim 8, Koizumi et al. discloses all the limitations based on claim 1 as outlined above. Koizumi et al. further disclose a driver for receiving a signal indicating a rotation speed, and driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See Fig. 5-block # 603,604);

wherein said decelerator employs a deceleration mode for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver

to decelerate the rotation of the information recording medium and further decelerate the rotation of the information recording medium as said second deceleration mode (See Figs. 15-block # 603, 604; 19A, 19B),

But Koizumi et al. fails to disclose a brake for applying a brake force to said information recording medium to decelerate the rotation. However this feature is well known in the art as evidenced by Hattori et al., which discloses a brake for applying a brake force to said information-recording medium to decelerate the rotation (See col. 2, lines 9-32; col. 3, lines 41-45);

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to include a brake for applying a brake force to said information-recording medium to decelerate the rotation in order to reach a predetermined motor speed as suggested by (Hattori et al.)

Regarding claim 13, Koizumi et al. discloses all the limitations based on claim 1 as outlined above.

Koizumi et al. further discloses wherein said signal controlling decelerator inputs the signal indicating the rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium (See Figs. 15-block # 603, 604; 19A, 19B),

and subsequently decelerate the rotation of the information recording medium (See Figs. 15-block # 603, 604; 19A, 19B),

But fails to disclose a brake force to said information recording medium to decelerate the rotation. However this feature is well known in the art as evidenced by Hattori et al., which

Art Unit: 2697

discloses a brake for applying a brake force to said information-recording medium to decelerate the rotation (See col. 2, lines 9-32; col. 3, lines 41-45);

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to include a brake for applying a brake force to said information-recording medium to decelerate the rotation in order to reach a predetermined motor speed as suggested by (Hattori et al.)

3. Claims 4-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi et al. U.S. Patent No. 5,982,570 in combination with Hattori et al. U.S. Patent No. 4,417,288 in further view of Kühn U.S. Patent No. 5,715,157.

Regarding claim 4, Koizumi et al. discloses all the limitations based on claim 1 as outlined above.

Koizumi et al. in combination with Hattori et al. discloses a brake for applying a brake force to said information recording medium to decelerate the rotation wherein said decelerator employs, as said second deceleration mode as outlined in claim 4 above. But fails to disclose or suggest wherein a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium.

However this feature is well known in the art as evidence by Kühn, which discloses a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium (See col. 1, lines 48-53; col. 2, lines 11-14)

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to intermittently operating said brake to decelerate the rotation of said information recording medium in order to slow to a predetermined motor speed as suggested by Kühn.

Regarding claim 5, Koizumi et al. discloses all the limitations based on claim 1 as outlined above. Koizumi et al. further discloses decelerate the rotation of said information recording medium and subsequently to further decelerate the rotation of the information recording medium as said second deceleration mode (medium (See Figs. 15- block # 603, 604; 19A, 19B).

Koizumi et al. in combination with Hattori et al. discloses a brake for applying a brake force to said information recording medium to decelerate the rotation wherein said decelerator employs, as said second deceleration mode as outlined in claim 4 above.

But fails to discloses or suggest wherein said decelerator employs a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium

However this feature is well known in the art as evidence by Kühn, which discloses a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium (See col. 1, lines 48-53; col. 2, lines 11-14)

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to intermittently operating said brake to decelerate the rotation of said information recording medium in order to slow to a predetermined motor speed as suggested by Kühn.

Art Unit: 2697

Regarding claim 9, Koizumi et al. discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in predetermined direction to perform at least an information reproduction with respect to the information recording medium (See Abstract, col. 1, lines 10-19),

Koizumi et al. fails to disclose a brake for applying a brake force to said information recording medium to decelerate rotation; and an intermittent braking decelerator for intermittently operating said brake to decelerate the rotation of said information recording medium.

Hattori et al. discloses a brake for applying a brake force to said information recording medium to decelerate the rotation (See col. 2, lines 9-32; col. 3, lines 41-45), but Hattori et al. does not disclose an intermittent braking decelerator for intermittently operating said brake to decelerate the rotation of said information recording medium.

However this feature is well known in the art as evidenced by Kühn, which discloses a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium (See col. 1, lines 48-53; col. 2, lines 11-14).

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to include a brake for applying a brake force to said information recording medium to decelerate the rotation and intermittently operating said brake to decelerate the rotation of said information recording medium in order to slow and reach a predetermined motor speed as suggested by (Hattori et al. and Kühn)

Regarding claim 10, Kühn further discloses said intermittent braking decelerator intermittently operates said brake to decelerate the rotation of said information recording

Art Unit: 2697

medium, and subsequently continuously operates the brake to further decelerate the rotation of the information recording medium (See col. 1, lines 48-53; col. 2, lines 11-14).

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to reproduction, reproduction apparatus.

- a. U.S. Patent No. 6,016,296 to Kim, which discloses a method for adjusting reproduction speed.
- b. U.S. Patent No. 5,831,945 to Shinbori et al., which discloses a record medium device with a variable control in accordance with power supply characteristics
- c. U.S. Patent No. 6,122,234 to Fujitani et al., which discloses a recording disk drive using a driving motor.
- d. U.S. Patent No. 5,701,284 to Lee, which discloses a disk rotation control apparatus.
- e. U.S. Patent No. 6,157,153 to Uegami et al., which discloses a motor driver for use in a drive apparatus.
- f. U.S. Patent No. 6,118,742 to Matsui et al., which discloses a disk- rotation control apparatus.
- g. U.S. Patent No. 6,215,609 to Yamashita et al., which discloses a recording/reproducing method and apparatus.
- h. U.S. Patent No. 6,351,287 to Sakaegi et al., which discloses an apparatus for recording and reproducing.

Art Unit: 2697

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu. (8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HOF SASS R JEFFERY can be reached on (703) 305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6743 for regular communications and (703) 308-6743 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

joc
April 15, 2003


Richmond Dorvil
Primary Examiner